

## **Assistive Technology Devices for Struggling Readers**

This document contains information on the range of assistive technology devices that can be used by struggling readers to increase their decoding, fluency, and comprehension skills. Many of these devices also support increased efficiency, productivity, independence, and enjoyment. In most instances, students use a combination of assistive technology devices to meet their reading needs. The types of assistive technology devices used to support reading are determined by individual student abilities and needs as well as the required reading tasks across all instructional environments.

In this document, assistive technology devices are organized into various categories based on the primary features or applications of the technology. Moreover, the age ranges for which the devices are appropriate are identified in the following categories: elementary, middle, and high school. Lastly, tools are linked to the various reading skills addressed in the Georgia Performance Standards. The skills areas are briefly defined below. It is recommended that individuals utilizing this document refer to the standards to determine the specific skills that are addressed at each grade level.

The following skills areas are addressed in this document:

- **Phonemic Awareness:** Phonemic awareness refers to the ability to focus on and manipulate phonemes in spoken words.
- **Phonics:** Phonics is the ability to associate sounds with letters and use these sounds to form words.
- **Vocabulary:** Vocabulary includes identifying the meanings of words and using those words appropriately within context.
- **Comprehension:** Comprehension is the complex cognitive process involving the intentional interaction between reader and text to convey meaning.
- **Fluency:** Fluency is the effortless, automatic ability to read words in connected text.

The assistive technology devices referenced in this document are included to provide examples of different types of devices used by students with disabilities to accomplish educationally relevant tasks in instructional and access areas. The document does not include all assistive technology devices within a device category and inclusion of a particular device does not constitute endorsement by the Georgia Department of Education. Additional devices may be added to the document by contacting the Georgia Project for Assistive Technology.

Additional information about the assistive technology devices referenced in this document is available on the Georgia Project for Assistive Technology's website at <http://www.gpat.org>. Additional information about the Georgia Performance Standards is available on the Georgia Department of Education's website at <http://doe.k12.ga.us>.

**Compensatory Tools**

Category	Examples	Age Range			Skill Area				
		Elementary	Middle School	High School	Phonemic Awareness	Phonics	Vocabulary	Comprehension	Fluency
Positioning Aids	Book Stands / Slant boards (Pocket Full of Therapy, Sammons Preston Rolyan, Onion Mountain Technology)	X	X	X					X
	Teacher-made slant boards with three-ring binders	X	X	X					X
	Clipboard, binder clips	X	X	X					X
	Page-Up (Onion Mountain Technology)	X	X	X					X
Page Turners	Page fluffers (teacher made)	X	X	X					X
	Page Turner (Zygo, Touch Turner, PageFlip)	X	X	X					X
Tracking Aids	Reading Window (teacher made)	X	X	X					X
	EZC Reader / Colored Reading Helper (Really Good Stuff)	X	X	X					X
	Bar Magnifier (Independent Living Aids)	X	X	X					X
Contrast Aids	Highlighter / Highlighting Tape (Crystal Springs Books)	X	X	X					X
	Acetate report covers	X	X	X					X
	Colored Overlays (National Reading Styles Institute, See It Right)	X	X	X					X
	Colored reading helpers (Onion Mountain Technology)	X	X	X					X
Word Identification Aids	Children's Talking Dictionary & Spell Corrector (Franklin)	X					X	X	
	Merriam Webster Speaking Dictionary and Thesaurus (Franklin)	X	X	X			X	X	
	Speaking Language Master (Franklin)	X	X	X			X	X	
Handheld Scanners	Reading Pen (Wizcom Technologies)	X	X	X			X	X	
	Notetaker (Don Johnston)	X	X	X			X	X	X
	Iris Pen (Onion Mountain Technology)	X	X	X			X	X	X

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		Elementary	Middle School	High School	Phonemic Awareness	Phonics	Vocabulary	Comprehension	Fluency
Standalone Magnification Aids	Closed circuit television systems (Telesensory)	X	X	X					X
	Bar magnifiers, page, pocket and stand magnifier (Maxi-Aids, LS&S)	X	X	X					X
	Binocular and monocular telescope (Maxi-Aids)	X	X	X					X
Alternate Format Books	Large type books								
	• Local libraries and bookstores	X	X	X					X
	• Georgia Instructional Materials Center ( <a href="http://www.gimc.org">www.gimc.org</a> )	X	X	X					X
	• American Printing House for the Blind-Louis Database ( <a href="http://www.aph.org">www.aph.org</a> )	X	X	X					X
	Commercially available braille books								
	• Georgia Instructional Materials Center ( <a href="http://www.gimc.org">www.gimc.org</a> )	X	X	X					X
	• National Braille Press ( <a href="http://www.nbp.org">www.nbp.org</a> )	X	X	X					X
	• American Printing House for the Blind ( <a href="http://www.aph.org">www.aph.org</a> )	X	X	X					X
	Symbolized text								
	• News-2-You ( <a href="http://www.news-2-you.com">www.news-2-you.com</a> )	X	X	X			X	X	X
	• Weekly Reader Ablenet Edition ( <a href="http://www.ablenetinc.com">www.ablenetinc.com</a> )	X	X	X			X	X	X
	• News 4 You (Mayer Johnson)	X	X	X			X	X	X
	• Graphic word processors (refer to graphic word processors)	X	X	X			X	X	X
	Commercially available audio books								
	• Local public libraries	X	X	X			X	X	X
	• Local bookstores	X	X	X			X	X	X
	• Online bookstores ( <a href="http://www.amazon.com">www.amazon.com</a> , <a href="http://www.audiobooks.com">www.audiobooks.com</a> )	X	X	X			X	X	X
	• Recordings For the Blind & Dyslexic ( <a href="http://www.rfbd.org">www.rfbd.org</a> ) (available by membership only and requires specially formatted players such as Handi Cassette II or Victor Reader series)	X	X	X			X	X	X

Category	Examples	Age Range			Skill Area				
		Elementary	Middle School	High School	Phonemic Awareness	Phonics	Vocabulary	Comprehension	Fluency
Alternate Format Books (continued)	<ul style="list-style-type: none"> <li>GLASS, National Library Service (<a href="http://www.georgialibraries.org/public/glass.html">http://www.georgialibraries.org/public/glass.html</a>) (available by membership only and requires specially formatted players such as Handi Cassette II or Victor Reader series)</li> </ul>	X	X	X			X	X	X
	Free electronic books								
	<ul style="list-style-type: none"> <li>Project Gutenberg (<a href="http://www.gutenberg.org">www.gutenberg.org</a>) <ul style="list-style-type: none"> <li>Text files work with any text reading software</li> </ul> </li> </ul>	X	X	X					X
	Commercially available electronic books (primarily visual display)								
	<ul style="list-style-type: none"> <li>eBookMall (<a href="http://www.eBookMall.com">www.eBookMall.com</a>) <ul style="list-style-type: none"> <li>Books available for Microsoft Reader, eReader, MobiPocket, Palm Reader</li> </ul> </li> </ul>	X	X	X					X
	<ul style="list-style-type: none"> <li>eReader (<a href="http://www.ereader.com">www.ereader.com</a>) <ul style="list-style-type: none"> <li>Works with eReader, eReader Pro software only</li> </ul> </li> </ul>	X	X	X					X
	<ul style="list-style-type: none"> <li>MobiPocket (<a href="http://www.mobipocket.com">www.mobipocket.com</a>) <ul style="list-style-type: none"> <li>Works with MobiPocket software only</li> </ul> </li> </ul>	X	X	X					X
	<ul style="list-style-type: none"> <li>Other commercial and public sources</li> </ul>	X	X	X					X
	<ul style="list-style-type: none"> <li>BookShare (<a href="http://www.bookshare.org">www.bookshare.org</a>) (available by membership only)</li> </ul>	X	X	X					X
	<ul style="list-style-type: none"> <li>Accessible Book Collection (<a href="http://www.accessiblebookcollection.org">www.accessiblebookcollection.org</a>) (available by membership only)</li> </ul>	X	X	X					X
	Some electronic books can be used with portable book readers								
	<ul style="list-style-type: none"> <li>Classmate (Don Johnston, Humanware)</li> </ul>	X	X	X			X	X	X
	<ul style="list-style-type: none"> <li>Palm OS devices (Palm)</li> </ul>	X	X	X					
	<ul style="list-style-type: none"> <li>Pocket PC (Dell)</li> </ul>	X	X	X					
	Text presentation software								
	<ul style="list-style-type: none"> <li>LiveInk (<a href="http://www.liveink.com">www.liveink.com</a>)</li> </ul>	X	X	X					X

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		Elementary	Middle School	High School	Phonemic Awareness	Phonics	Vocabulary	Comprehension	Fluency
Alternate Format Books (continued)	Computer books								
	• Start-to-Finish Literacy Starters (Don Johnston)	X	X	X			X	X	X
	• Start-to-Finish Core Content (Don Johnston)	X	X	X			X	X	X
	• Start-to-Finish Books (Don Johnston)	X	X	X			X	X	X
	• Thinking Reader (Tom Snyder)	X	X	X			X	X	X
Digital Audio Files (auditory only)	Free digital audio books								
	• Project Gutenberg ( <a href="http://www.gutenberg.org">www.gutenberg.org</a> ), click on Audio Books link o ( <a href="http://www.gutenberg.org/wiki/Gutenberg:The_Audio_Books_Project">http://www.gutenberg.org/wiki/Gutenberg:The Audio Books Project</a> )	X	X	X			X	X	X
	Teacher made files with digital recorder						X	X	X
	Computer software generated files								
	• Alive Text to Speech (Emetrix)	X	X	X			X	X	X
	• TextAloud (NextUp)	X	X	X			X	X	X
	• Text To Audio (Premier AT)	X	X	X			X	X	X
	• Advanced Reading and Writing Aid feature (Kurzweil 3000)	X	X	X			X	X	X
	Files can be listened to using:								
	• Windows Media Player (Microsoft)	X	X	X			X	X	X
	• Portable digital recorder (retail stores)	X	X	X			X	X	X
	• Portable MP3 player (retail stores)	X	X	X			X	X	X
	• Computer	X	X	X			X	X	X
Text Reading Software (visual and auditory)	• ReadPlease Free 2003 (ReadPlease)	X	X	X			X	X	X
	• Natural Reader (NaturalSoft, Ltd)	X	X	X			X	X	X
	• eText Reader (Premier AT)	X	X	X			X	X	X
	• Universal Reader (Premier AT)	X	X	X			X	X	X
	• Text to speech software for Palm OS (Handango)	X	X	X			X	X	X

Category	Examples	Age Range			Skill Area				
		Elementary	Middle School	High School	Phonemic Awareness	Phonics	Vocabulary	Comprehension	Fluency
PDF Reading Software (visual and auditory)	• Adobe Reader (Adobe)	X	X	X			X	X	
	• PDF Aloud (TextHelp)	X	X	X			X	X	
	• TextAloud (NextUp)	X	X	X			X	X	X
	• Advanced Reading and Writing Aids								
	o Kurzweil 3000 (Kurzweil)	X	X	X			X	X	X
	o Read and Write Gold (TextHelp)	X	X	X			X	X	X
	o WYNN (Freedom Scientific)	X	X	X			X	X	X
Electronic Word Identification Aids	WordWeb Dictionary Thesaurus (WordWeb Software)	X	X	X			X	X	
Standard Word Processing Software (visual and auditory)	Microsoft Word (Microsoft)	X	X	X			X	X	X
	• WordTalk ( <a href="http://www.wordtalk.org.uk">www.wordtalk.org.uk</a> )	X	X	X			X	X	X
	Word Perfect (Corel)	X	X	X			X	X	X
Graphic Word Processing Software (visual and auditory)	Writing With Symbols (Mayer Johnson)	X	X	X			X	X	X
	Clicker (Crick Software)	X	X	X			X	X	X
	PixWriter (Slater Software)	X	X	X			X	X	
	Classroom Suite (IntelliTools)	X	X	X			X	X	X
Talking Word Processing Software (visual and auditory)	WriteOutLoud (Don Johnston)	X	X				X	X	X
	Classroom Suite (IntelliTools)	X	X				X	X	X
	Writing with Symbols 2000 (Mayer Johnson)	X	X				X	X	X
	Cast eReader (CAST)	X	X	X			X	X	X
	Talking Word Processor (Premier AT)	X	X	X			X	X	X
	Tex-Edit Plus (Trans Tex Software)	X	X	X			X	X	X
	Read & Write (TextHelp)	X	X	X			X	X	X

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Advanced Reading and Writing Aid Software (visual and auditory)	Read & Write Gold (TextHelp)		X	X			X	X	X
	Kurzweil 3000 (Kurzweil Educational Systems)	X	X	X			X	X	X
	WYNN (Freedom Scientific)	X	X	X			X	X	X
	SOLO (Don Johnston)	X	X	X			X	X	X
	TestTalker (Freedom Scientific)	X	X	X			X	X	X
Screen Enlargement Software	ZoomText (AI Squared)	X	X	X					X
	MAGic (Freedom Scientific)	X	X	X					X
Screen Reading Software	JAWS (Freedom Scientific)	X	X	X			X	X	X
	Window Eyes (GW Micro)	X	X	X			X	X	X
Braille Translation Software	Braille translation software for embossing and refreshable Braille displays								
	• Duxbury (Duxbury Systems)	X	X	X					X
	• MegaDots (Duxbury Systems)	X	X	X					X